Kansas Department of Health and Environment

Bureau of Environmental Remediation, Remedial Section

State Water Plan Contamination Remediation Program

State Water Plan Provides Assisstance to Alton

Background:

Nitrate contamination was identified in public water supply (PWS) wells located in the City of Alton, Osborne County, Kansas. These wells served approximately 117 people. During routine sampling of the two PWS Wells (#1 and #2) in the City of Alton, nitrate levels exceeding federal drinking water standards of 10 mg/L were detected in Public Water Supply Well (PWS) #1. In 1999, PWS #1 was removed from service.

Routine monitoring of PWS #1 revealed increasing nitrate concentrations in the groundwater following the flood of 1993. Analytical results from historic sampling have indicated nitrate levels ranging from 47.5 to 62.4 mg/L. In 1998, the Kansas Department of Health and Environment's (KDHE's) State Water Plan Contamination Remediation Program (SWP) conducted a Comprehensive Investigation (CI), indicating two potential source areas for nitrate contamination in the Alton area.

Solution:

When PWS #1 became unusable due to excessive nitrate, the City installed a new well, #2, west of Alton across the South Fork Solomon River. Water from #2 is extremely mineralized and following chlorination is at times tinted red from dissolved iron. Alton installed and is using a new PWS well field located northwest of the town, financed largely with funding obtained through a Community Debelopment Block Grant (CDBG). The preliminary ground water investigation conducted by SWP identified the new well field location for further evaluation.

Benefits:

- **KDHE's assessment identified locations ouside of the nitrate-contaminated are from which Alton could obtain safe drinking water.**
- **The City installed a new PWS well field, providing 117 people with a new public water supply.**

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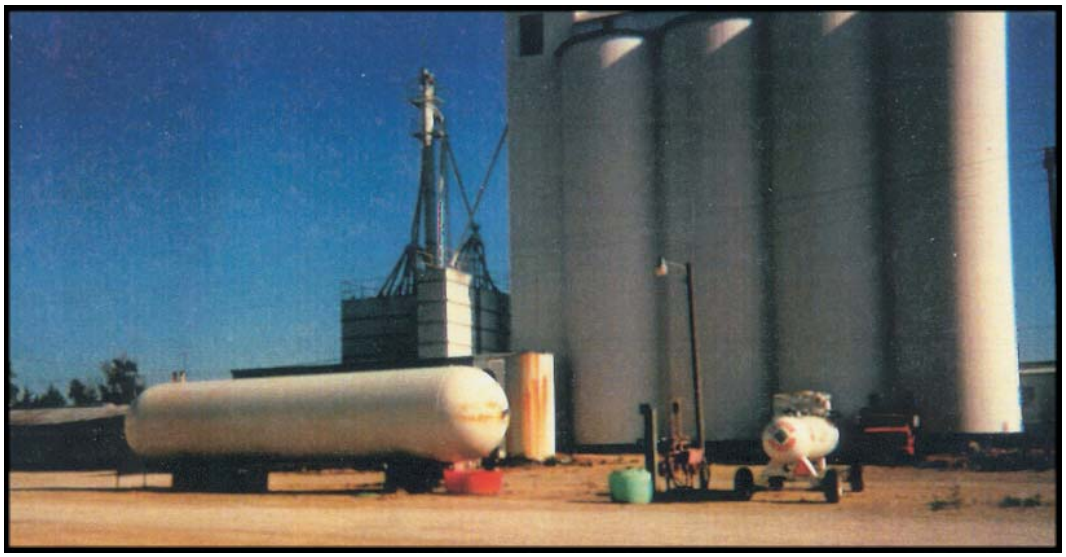

Anhydrous ammonia storage tank at co-op, a potential source for nitrate contamination.